



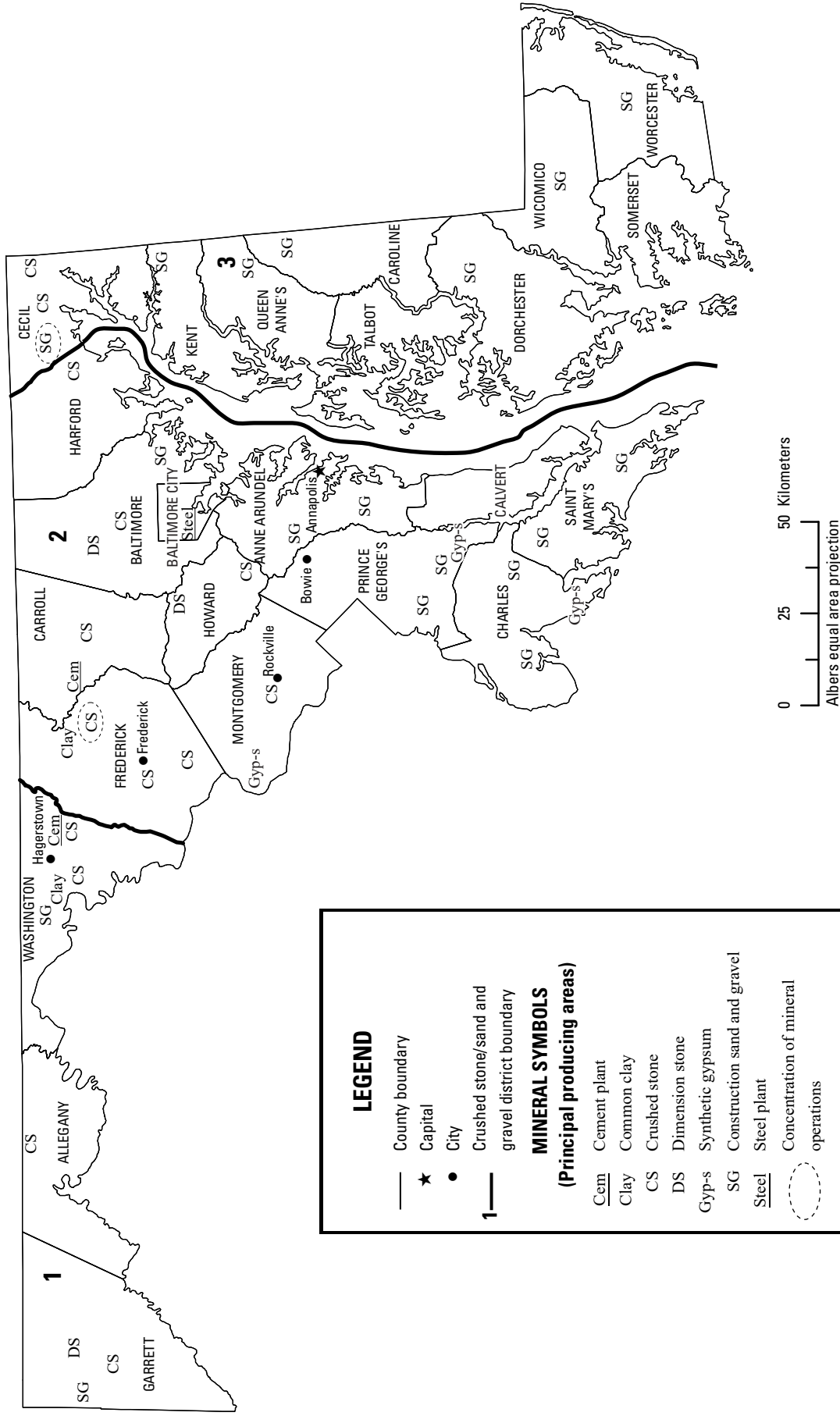
# 2010–2011 Minerals Yearbook

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## MARYLAND

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# THE MINERAL INDUSTRY OF MARYLAND

This chapter has been prepared under a Memorandum of Understanding between the U.S. Geological Survey and the Maryland Department of the Environment, Minerals, Oil, and Gas Division, for collecting information on all nonfuel minerals.

In 2011, Maryland's nonfuel mineral production<sup>1</sup> was valued at \$293 million, based upon annual U.S. Geological Survey (USGS) data. This was a decrease of \$8 million (3%) from the State's total of \$302 million in 2010. Due to downsizing and consolidation, a sizable portion of value data in 2010 and 2011 must be withheld to appropriately conceal proprietary company data and is not comparable to 2009 as shown in table 1. Based upon reportable data, the State ranked 38th in 2011, 36th in 2010, and 34th in 2009, among the 50 States in total nonfuel mineral production value. On a per capita basis, Maryland was 45th in the Nation in nonfuel mineral production in 2011 with a value of \$50, well below the national average of \$240.

<sup>1</sup>The terms "nonfuel mineral production" and related "values" encompass variations in meaning, depending upon the mineral products. Production may be measured by mine shipments, mineral commodity sales, or marketable production (including consumption by producers) as is applicable to the individual mineral commodity.

All USGS mineral production data published in this chapter are those available as of May 2013. Data in this report are rounded to three significant digits and percentages are calculated from unrounded data. All USGS Mineral Industry Surveys and USGS Minerals Yearbook chapters—mineral commodity, State, and country—can be retrieved over the Internet at <http://minerals.usgs.gov/minerals>.

In 2011 and 2010, crushed stone, portland cement, construction sand and gravel, masonry cement, and dimension stone were Maryland's major nonfuel mineral commodities based upon production value. From 2009 to 2011, the quantity of crushed stone produced in Maryland decreased by more than 2.8 million metric tons (Mt) (12%). In 2010, the production value of crushed stone increased by \$9.7 million (5%), to \$217 million, before decreasing by \$8 million (4%), to \$209 million in 2011. In 2010, the production value of construction sand and gravel decreased by \$16.4 million (17%), with production increasing by less than 1%. In 2011, production of construction sand and gravel decreased by 1.1 million metric tons (Mt) (14%) but production value increased by less than 1%. Dimension stone production and value increased by more than 50% in 2010 before decreasing in both production and production value by 25% in 2011 (data for 2009 withheld—company proprietary data).

All nonfuel mineral commodities mined in Maryland were industrial minerals. All metal production, especially that of raw steel in the Baltimore area, consisted of the processing and refining of materials received from other domestic and foreign sources.

TABLE 1  
NONFUEL RAW MINERAL PRODUCTION IN MARYLAND<sup>1,2</sup>

(Thousand metric tons and thousand dollars)

Mineral	2009		2010		2011	
	Quantity	Value	Quantity	Value	Quantity	Value
Gemstones, natural	NA	1	NA	1	NA	1
Sand and gravel, construction	7,980	99,200	8,120	82,700	6,980	83,100
Stone:						
Crushed	23,300	208,000 <sup>†</sup>	21,500	217,000	20,400	209,000
Dimension	W	(3)	8	1,630	6	1,230
Combined values of cement, clays (common), and value indicated by footnote 3	XX	198,000	XX	W	XX	W
Total	XX	505,000 <sup>†</sup>	XX	302,000	XX	293,000

<sup>†</sup>Revised. NA Not available. W Withheld to avoid disclosing company proprietary data; excluded from "Total." XX Not applicable.

<sup>1</sup>Production as measured by mine shipments, sales, or marketable production (including consumption by producers).

<sup>2</sup>Data are rounded to three significant digits; may not add to totals shown.

<sup>3</sup>Withheld values included in "Combined values" data.

TABLE 2  
MARYLAND: CRUSHED STONE SOLD OR USED IN THE UNITED STATES, BY TYPE<sup>1</sup>

Type	2009				2010				2011			
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value
Limestone <sup>2</sup>	16	12,400 <sup>r</sup>	\$106,000 <sup>r</sup>	\$8.54	15	12,200	\$122,000	\$9.95	14	12,000	\$118,000	\$9.87
Marble	2	167	1,780	10.65	2	213	2,410	11.28	--	--	--	--
Granite	4	6,680 <sup>r</sup>	57,000 <sup>r</sup>	8.54	3	4,600	44,900	9.77	3	3,810	37,100	9.73
Traprock	--	--	--	--	3	3,550	38,700	10.88	3	4,070	46,900	11.51
Sandstone and quartzite <sup>3</sup>	3	93	1,290	13.88	4	96	2,340	24.48	4	77	2,090	27.13
Miscellaneous stone	6 <sup>r</sup>	3,900 <sup>r</sup>	41,500 <sup>r</sup>	10.64	4	835	7,490	8.98	4	430	4,600	10.70
Total or average	XX	23,300	208,000 <sup>r</sup>	8.93	XX	21,500	217,000	10.10	XX	20,400	209,000	10.26

<sup>1</sup>Revised. XX Not applicable. -- Zero.

<sup>2</sup>Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.

<sup>3</sup>Includes limestone-dolomite reported with no distinction between the two kinds of stone.

<sup>4</sup>Includes sandstone-quartzite reported with no distinction between the two kinds of stone.

TABLE 3  
MARYLAND: CRUSHED STONE SOLD OR USED BY PRODUCERS  
IN 2010, BY USE<sup>1</sup>

(Thousand metric tons and thousand dollars)

Use	Quantity	Value
<b>Construction:</b>		
<b>Coarse aggregate (+1½ inch):</b>		
Riprap and jetty stone	221	2,960
Other coarse aggregate	608	7,740
<b>Coarse aggregate, graded:</b>		
Concrete aggregate, coarse	W	W
Bituminous aggregate, coarse	1,020	12,200
Bituminous surface-treatment aggregate	W	W
Railroad ballast	W	W
Other graded coarse aggregate	3,000	32,700
<b>Fine aggregate (-¾ inch):</b>		
Stone sand, concrete	W	W
Stone sand, bituminous mix or seal	W	W
Screening, undesignated	104	507
Other fine aggregate	1,430	12,900
<b>Coarse and fine aggregates:</b>		
Graded road base or subbase	1,350	12,600
Unpaved road surface	W	W
Crusher run or fill or waste	347	1,940
Other coarse and fine aggregates	2,520	20,600
Chemical and metallurgical, sulfur oxide removal	W	W
Other miscellaneous uses and specified uses not listed	W	W
<b>Unspecified:<sup>2</sup></b>		
Reported	873	10,300
Estimated	6,600	66,200
<b>Total</b>	<b>21,500</b>	<b>217,000</b>

W Withheld to avoid disclosing company proprietary data; included in "Total."

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Reported and estimated production without a breakdown by end use.

TABLE 4  
MARYLAND: CRUSHED STONE SOLD OR USED BY PRODUCERS  
IN 2011, BY USE<sup>1</sup>

(Thousand metric tons and thousand dollars)

Use	Quantity	Value
<b>Construction:</b>		
Coarse aggregate (+1½ inch):		
Riprap and jetty stone	78	1,050
Unspecified coarse aggregate	694	10,300
Coarse aggregate, graded:		
Concrete aggregate, coarse	W	W
Bituminous aggregate, coarse	W	W
Railroad ballast	126	1,520
Unspecified graded coarse aggregate	4,160	48,600
Fine aggregate (-¾ inch):		
Stone sand, concrete	W	W
Screening, undesignated	204	1,070
Unspecified fine aggregate	990	8,500
Coarse and fine aggregates:		
Graded road base or subbase	W	W
Unpaved road surface	W	W
Crusher run or fill or waste	161	1,130
Unspecified coarse and fine aggregates	2,960	27,200
Unspecified and other construction materials	40	599
Agricultural, agricultural limestone	W	W
Chemical and metallurgical:		
Cement manufacture	W	W
Sulfur oxide removal	W	W
Special:		
Whiting or whiting substitute	W	W
Other fillers or extenders		
Unspecified: <sup>2</sup>		
Reported	2,340	27,000
Estimated	5,460	59,200
<b>Total</b>	<b>20,400</b>	<b>209,000</b>

W Withheld to avoid disclosing company proprietary data; included in "Total."

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Reported and estimated production without a breakdown by end use.

TABLE 5  
MARYLAND: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2010, BY USE AND DISTRICT<sup>1</sup>

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3	
	Quantity	Value	Quantity	Value	Quantity	Value
<b>Construction:</b>						
Coarse aggregate (+1½ inch) <sup>2</sup>	W	W	704	8,870	W	W
Coarse aggregate, graded <sup>3</sup>	314	3,590	5,420	58,300	W	W
Fine aggregate (-¾ inch) <sup>4</sup>	W	W	1,490	13,800	W	W
Coarse and fine aggregates <sup>5</sup>	315	2,850	1,970	17,000	2,000	16,100
Agricultural <sup>6</sup>	--	--	--	--	--	--
Chemical and metallurgical <sup>7</sup>	W	W	--	--	--	--
Other miscellaneous uses and specified uses not listed <sup>8</sup>	3	1,000	--	--	--	--
<b>Unspecified:<sup>9</sup></b>						
Reported	758	8,920	826	7,510	115	1,400
Estimated	589	5,970	5,760	57,700	248	2,530
<b>Total<sup>10</sup></b>	<b>2,310</b>	<b>25,400</b>	<b>16,200</b>	<b>163,000</b>	<b>3,210</b>	<b>32,000</b>

W Withheld to avoid disclosing company proprietary data; included in "Total." -- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Includes macadam, riprap and jetty stone, filter stone, and other coarse aggregates.

<sup>3</sup>Includes concrete aggregate (coarse), bituminous aggregate (coarse), bituminous surface-treatment aggregate, railroad ballast, and other graded coarse aggregates.

<sup>4</sup>Includes stone sand (concrete), stone sand (bituminous mix or seal), screening (undesignated), and other fine aggregates.

<sup>5</sup>Includes graded road base or subbase, unpaved road surface, terrazzo and exposed aggregate, crusher run, roofing granules, and other coarse and fine aggregates.

<sup>6</sup>Includes agricultural limestone, poultry grit and mineral food, and other agricultural uses.

<sup>7</sup>Includes cement manufacture, lime manufacture, dead-burned dolomite manufacture, flux stone, chemical stone, glass manufacture, and sulfur oxide removal.

<sup>8</sup>Includes drain fields, waste material, lightweight aggregate (slate), pipe bedding, refractory stone (including ganister), and other miscellaneous uses.

<sup>9</sup>Reported and estimated production without a breakdown by end use.

<sup>10</sup>District totals may not add up to the published State total, owing to revisions made after the production of the table and (or) proprietary data being withheld.

TABLE 6  
MARYLAND: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2011, BY USE AND DISTRICT<sup>1</sup>

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3	
	Quantity	Value	Quantity	Value	Quantity	Value
<b>Construction:</b>						
Coarse aggregate (+1½ inch) <sup>2</sup>	W	W	652	9,470	W	W
Coarse aggregate, graded <sup>3</sup>	W	W	3,390	38,400	W	W
Fine aggregate (-¾ inch) <sup>4</sup>	W	W	983	8,310	W	W
Coarse and fine aggregates <sup>5</sup>	248	2,400	1,690	15,600	1,560	13,400
Other construction materials	W	W	--	--	--	--
Agricultural <sup>6</sup>	W	W	--	--	--	--
Chemical and metallurgical <sup>7</sup>	W	W	W	W	--	--
Special <sup>8</sup>	--	--	W	W	--	--
<b>Unspecified:<sup>9</sup></b>						
Reported	910	10,900	1,340	15,100	92	982
Estimated	253	3,670	5,150	54,900	59	630
<b>Total</b>	<b>2,210</b>	<b>23,900</b>	<b>15,300</b>	<b>156,000</b>	<b>2,840</b>	<b>29,000</b>

W Withheld to avoid disclosing company proprietary data; included in "Total." -- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Includes macadam, riprap and jetty stone, filter stone, and other coarse aggregates.

<sup>3</sup>Includes concrete aggregate (coarse), bituminous aggregate (coarse), bituminous surface-treatment aggregate, railroad ballast, and other graded coarse aggregates.

<sup>4</sup>Includes stone sand (concrete), stone sand (bituminous mix or seal), screening (undesignated), and other fine aggregate.

<sup>5</sup>Includes graded road base or subbase, unpaved road surface, terrazzo and exposed aggregate, crusher run, roofing granules, and other coarse and fine aggregates.

<sup>6</sup>Includes agricultural limestone, poultry grit and mineral food, and other agricultural uses.

<sup>7</sup>Includes cement manufacture, lime manufacture, dead-burned dolomite manufacture, flux stone, chemical stone, glass manufacture, and sulfur oxide removal.

<sup>8</sup>Includes mine dusting or acid water treatment, whitening or whitening substance, and other fillers or extenders.

<sup>9</sup>Reported and estimated production without a breakdown by end use.

TABLE 7  
MARYLAND: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2010,  
BY MAJOR USE CATEGORY<sup>1</sup>

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregate (including concrete sand)	5,170	\$56,500	\$10.92
Concrete products (blocks, bricks, pipe, decorative, etc.) <sup>2</sup>	252	2,620	10.40
Asphaltic concrete aggregates and other bituminous mixtures	259	2,740	10.58
Road base and coverings <sup>3</sup>	133	1,370	10.28
Fill	784	1,650	2.11
Other miscellaneous uses <sup>4</sup>	281	3,050	10.86
Unspecified: <sup>5</sup>			
Reported	485	6,510	13.42
Estimated	759	8,330	10.97
Total or average	8,120	82,700	10.18

<sup>1</sup>Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.

<sup>2</sup>Includes plaster and gunite sands.

<sup>3</sup>Includes road and other stabilization (cement and lime).

<sup>4</sup>Includes filtration, golf course, and snow and ice control.

<sup>5</sup>Reported and estimated production without a breakdown by end use.

TABLE 8  
MARYLAND: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2011,  
BY MAJOR USE CATEGORY<sup>1</sup>

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregate and concrete products <sup>2</sup>	4,940	\$58,900	\$11.92
Asphaltic concrete aggregates and other bituminous mixtures	65	611	9.40
Road base and coverings	63	728	11.56
Fill	336	1,740	5.18
Other miscellaneous uses <sup>3</sup>	283	5,110	18.06
Unspecified: <sup>4</sup>			
Reported	840	11,300	13.45
Estimated	454	4,600	10.13
Total or average	6,980	83,100	11.91

<sup>1</sup>Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.

<sup>2</sup>Includes plaster and gunite sands.

<sup>3</sup>Includes filtration, golf course, and snow and ice control.

<sup>4</sup>Reported and estimated production without a breakdown by end use.



TABLE 9  
MARYLAND: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2010,  
BY USE AND DISTRICT<sup>1</sup>

(Thousand metric tons and thousand dollars)

Use	Districts 1 and 2		District 3	
	Quantity	Value	Quantity	Value
Concrete aggregate and concrete products <sup>2</sup>	2,640	32,300	2,780	26,800
Asphaltic concrete aggregates and road base materials <sup>3</sup>	W	W	W	W
Other miscellaneous uses <sup>4</sup>	370	1,600	695	3,110
Unspecified: <sup>5</sup>				
Reported	468	6,160	17	351
Estimated	431	4,610	723	7,830
Total <sup>6</sup>	3,910	44,600	4,220	38,100

W Withheld to avoid disclosing company proprietary data; included in "Other miscellaneous uses."

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Includes plaster and gunite sands.

<sup>3</sup>Includes road and other stabilization (cement and lime).

<sup>4</sup>Includes fill, filtration, golf course, and snow and ice control.

<sup>5</sup>Reported and estimated production without a breakdown by end use.

<sup>6</sup>District totals may not add up to the published State total, owing to revisions made after the production of the table and (or) proprietary data being withheld.

TABLE 10  
MARYLAND: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2011,  
BY USE AND DISTRICT<sup>1</sup>

(Thousand metric tons and thousand dollars)

Use	Districts 1 and 2		District 3	
	Quantity	Value	Quantity	Value
Concrete aggregate and concrete products <sup>2</sup>	W	W	W	W
Asphaltic concrete aggregates and road base materials	W	W	W	W
Other miscellaneous uses <sup>3</sup>	248	2,060	361	4,680
Unspecified: <sup>4</sup>				
Reported	836	11,200	4	89
Estimated	111	543	343	4,060
Total	4,070	52,300	2,920	30,700

W Withheld to avoid disclosing company proprietary data; included in "Total."

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Includes plaster and gunite sands.

<sup>3</sup>Includes fill, filtration, golf course, and snow and ice control.

<sup>4</sup>Reported and estimated production without a breakdown by end use.